OREGON FLORA *Newsletter*

VOLUME 15 NUMBER 1 **OREGON STATE UNIVERSITY** **FEBRUARY 2009**

Glide Wildflower Show Locates the Flowers

by Nacy Tague and Dianne Muscarello

"Where does this flower grow?" The botanists at the annual Glide Wildflower Show hear this question many times every year. Visitors fall in love with the striking beauty of the region's abundant wildflowers and dream of finding them on a local hike or in their own backyard. The Glide Wildflower Show has found a graphic way of answering this question, thanks to the Oregon Flora Project.

The seed for the idea was planted in 2006. That year a local presenter used Oregon Flora Project Plant Atlas maps to indicate wildflower locations. A couple of Glide Show volunteers attending the talk observed, "Wouldn't it be cool if maps like these could be displayed with the plants in our show?"

The show's Council liked the idea, and the two volunteers learned that a person should be careful what she suggests, for she may end up taking on the project! Previously, Glide Show plant labels showed only common and scientific names; new labels would now include Oregon Plant Atlas distribution maps.

Creating the new labels has been an ambitious project. In 2007, 400 new labels were created. In 2008, the labels were laminated for permanence. This year, labels for more plants are being added. Eventually, we'll have new labels for every species that might appear in the show, about a thousand species. Weather, habitat change, and collecting resources change the show's content each year, but typically the show includes over 600 plants.

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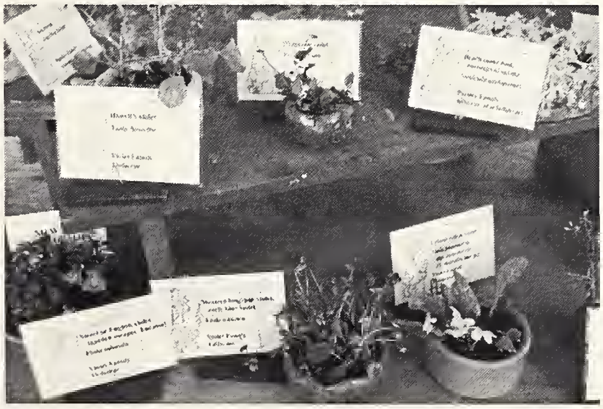

Photo by Dianne Muscarello

Glide Wildflower Show 2008

Recent generic changes in the Asteraceae: what's in store for the Oregon Flora Project?

by Kenton L. Chambers

Part I: Tribes Astereae, Cichorieae, Heliantheae, Senecioneae

Editor's Note: *In the large sunflower family, Asteraceae, the strongest evidence supporting the new taxonomy is often derived from cladistic analysis of data from DNA-based molecular research. We thank Dr. Chambers for synthesizing this latest information here for our Newsletter readers.*

The role of the Oregon Flora Project Checklist is to present an accepted name and synonyms for each plant in the state, based on our current understanding of the relationships among taxa. This knowledge is derived from experimental science, as well as from the traditional use of field studies and herbarium collections. Few plant families necessitate as thorough an analysis and cross-referencing as does the Sunflower Family, Asteraceae. Much of the work that went into the Vascular Plant Checklist treatment of the Sunflower Family as presented here is based on early collaborations by Dr. Chambers and Dr. Scott Sundberg.

Recent taxonomic studies in family Asteraceae (Compositae) have revised our understanding of the relationships of a number of genera, leading to significant changes of names and placements for many familiar species. The "new systematics" of the Asteraceae is most completely expressed in three volumes of *Flora of North America,* Vols. 19, 20, and 21, which appeared in 2006. The second edition of the *Jepson Manual: Higher Plants of California*, to be published soon, will also follow most or all of these recommended changes, and for the Oregon Flora Project, we expect to incorporate them, after applying our best taxonomic judgment to those that are most controversial. That is, we reserve the right to follow an independent path in a few cases. In this article, we include only species that have been confirmed by herbarium specimens as occurring in Oregon.

The following tables for the above four tribes link the newer generic names, and sometimes specific epithets, with the older classification that was used in *Flora of the Pacific Northwest* (1973). For the Asteraceae, this earlier taxonomy was authored by the late Arthur Cronquist and represented his opinion as a recognized expert on the family. Cronquist

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Gilde Wildflower Show continued from front page

Initially, much work went into learning the Atlas's features and developing a format and template for the labels. Decisions such as size, font, amount of map detail to be included, and color choices were a balancing act: keeping the labels small, providing enough information, and yet making them easily readable and aesthetically pleasing – all were taken into account.

Creating the new labels is a multi-step process, using several software applications and requiring photoediting expertise. Three major steps were followed:

1. Locate the species in the on-line Oregon Plant Atlas and retrieve the map. This is the easiest part: looking up the species on the Atlas, verifying scientific and common names on the show's list, and calling up the map.

2. Copy map to computer, rough-edit, and include text. The map is copied to software to be edited. The copied map originally includes everything seen on the computer screen, so the image is cropped and partially erased so only necessary lines remain. The common and scientific names are also typed into the computer file.

3. Edit map for desired label format. The map is superimposed on a label template and resized to match. Additional photo editing changes colors, cleans up extraneous pixels, then copies and positions the identifying text.

Generating the labels has taken hundreds of hours, a labor that varies from tedious repetition to delightful discovery. The two volunteers making the labels are not botanists, just wildflower lovers, so when they see an Atlas map showing one of their favorite flowers widespread through the Cascades or unique to their county, they are the first to experience the delight of learning more about their natural world.

Visitors to the Glide Wildflower Show have echoed that reaction. "It's so cool to see where these flowers grow!" They are excited to be able to view the flowers with label information that places the species in geographical context. At a glance, visitors learn if the plant is widespread or limited to one area, loves the coast or the lofty peaks of the high Cascades, prefers the damp western valleys or the dry eastern expanses. Visitors leave the show with much more understanding of the plants they have just seen. In addition, they are introduced to the Oregon Flora Project and an important sample of its wealth of information.

With our new labels, thanks to the Oregon Flora Project and its online Atlas, the Glide Wildflower Show is better able to fulfill its mission: "By knowing our wildflowers we can better preserve them for ourselves and for the future." Come to the show and check out the flowers and our labels!

This year's show is on Saturday and Sunday, April 25-26. The location, as always, is Glide, Oregon on North Umpqua Highway 138, about 25 miles northeast of Roseburg.

For more information about the Glide Wildflower Show, visit our website at: *www.glidewildflowershow.org.*

Please help us conserve resources!

If you prefer to receive this newsletter electronically via an email notice, or would like to be removed from our mailing list, please let us know. Send us an email at: *ofpflora@oregonflora.org*, or contact us using the below information.

Erythronium oregonum logo and masthead designed by Tanya Harvey.

The Oregon Flora Newsletter is published three times a year by the Oregon Flora Project and the Oregon State University Herbarium. The Editor is Rhoda Love and the Production Assistant is Rena Schlachter.

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Linda Hardison

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Asteraceae changes continued from front page

also authored the Asteraceae for The *Intermountain Flora*, Vol. 5, published posthumously in 1994, and I include species from that work that occur in southeastern Oregon.

For tribe Astereae in the table below, species are treated alphabetically by their newest generic name (in boldface). Below each are Oregon taxa in that genus with the older (perhaps more familiar) name on the left and the currently accepted name on the right. For the other tribes, older names are listed alphabetically by genus. Some varietal names are omitted to save space. The soon-to-be-released Oregon Flora Project Vascular Plant Checklist will include more cross-referencing of names than is possible here.

Tribe tables, next two pages

Tribe Astereae

Canadanthus
Aster modestus Lindl. = ***Canadanthus modestus*** (Lindl.) G. L. Nesom

Columbiadoria
Haplopappus hallii A. Gray = ***Columbiadoria hallii*** (A. Gray) G. L. Nesom

Dieteria
Machaeranthera canescens (Pursh) A. Gray = ***Dieteria canescens*** (Pursh) Nutt.
Machaeranthera shastensis A. Gray = ***Dieteria canescens* var. *shastensis*** (A. Gray) D. R. Morgan & R. L. Hartman

Ericameria
Chrysothamnus nauseosus (Pursh) Britton = ***Ericameria nauseosa*** (Pursh) G. L. Nesom
Chrysothamnus parryi (A. Gray) Greene = ***Ericameria parryi*** (A. Gray) G. L. Nesom & G. I. Baird
Haplopappus arborescens (A. Gray) H. M. Hall = ***Ericameria arborescens*** (A. Gray) Greene
Haplopappus bloomeri A. Gray = ***Ericameria bloomeri*** (A. Gray) J. F. Macbr.
Haplopappus greenei A. Gray = ***Ericameria greenei*** (A. Gray) G. L. Nesom
Haplopappus macronema A. Gray = ***Ericameria discoidea*** (Nutt.) G. L. Nesom
Haplopappus nanus (Nutt.) D. C. Eaton = ***Ericameria nana*** Nutt.
Haplopappus resinosus (Nutt.) A. Gray = ***Ericameria resinosa*** Nutt.
Haplopappus suffruticosus (Nutt.) A. Gray = ***Ericameria suffruticosa*** (Nutt.) G. L. Nesom

Eucephalus
Aster breweri (A. Gray) Semple = ***Eucephalus breweri*** (A. Gray) G. L. Nesom
Aster brickellioides Greene = ***Eucephalus tomentellus*** (Greene) Greene
Aster gormanii (Piper) S. F. Blake = ***Eucephalus gormanii*** Piper
Aster ledophyllus (A. Gray) A. Gray = ***Eucephalus ledophyllus*** (A. Gray) Greene
Aster perelegans A. Nelson & J. F. Macbr. = ***Eucephalus elegans*** Nutt.
Aster siskiyouensis A. Nelson & J. F. Macbr. = ***Eucephalus glabratus*** (Greene) Greene
Aster vialis (Bradshaw) S. F. Blake = ***Eucephalus vialis*** Bradshaw

Eurybia
Aster conspicuus Lindl. = ***Eurybia conspicua*** (Lindl.) G. L. Nesom
Aster integrifolius Nutt. = ***Eurybia integrifolia*** (Nutt.) G. L. Nesom
Aster radulinus A. Gray = ***Eurybia radulina*** (A. Gray) G. L. Nesom
Aster sibiricus L. var. *meritus* (A. Nelson) Raup = ***Eurybia merita*** (A. Nelson) G. L. Nesom

Hazardia
Haplopappus whitneyi A. Gray = ***Hazardia whitneyi*** (A. Gray) Greene

Ionactis
Aster scopulorum A. Gray = ***Ionactis alpina*** (Nutt.) Greene

Nestotus
Haplopappus stenophyllus A. Gray = ***Nestotus stenophyllus*** (A. Gray) Urbatsch

Oreostemma
Aster alpigenus (Torr. & A. Gray) A. Gray var. *alpigenus* = ***Oreostemma alpigenum*** (Torr. & A. Gray) Greene var. ***alpigenum***
Aster alpigenus var. *andersonii* (A. Gray) M. Peck = ***Oreostemma alpigenum*** var. ***andersonii*** (A. Gray) G. L. Nesom

Pyrrocoma
Haplopappus carthamoides (Hook.) A. Gray = ***Pyrrocoma carthamoides*** Hook.
Haplopappus hirtus A. Gray = ***Pyrrocoma hirta*** (A. Gray) Greene
Haplopappus lanceolatus (Hook.) Torr. & A. Gray = ***Pyrrocoma lanceolata*** (Hook.) Greene
Haplopappus racemosus (Nutt.) Torr. = ***Pyrrocoma racemosa*** (Nutt.) Torr. & A. Gray
Haplopappus radiatus (Nutt.) Cronquist = ***Pyrrocoma radiata*** Nutt.
Haplopappus uniflorus (Hook.) Torr. & A. Gray = ***Pyrrocoma uniflora*** (Hook.) Greene
Haplopappus uniflorus ssp. *linearis* D. D. Keck = ***Pyrrocoma linearis*** (D. D. Keck) Kartesz & Gandhi

Sericocarpus
Aster curtus Cronquist = ***Sericocarpus rigidus*** Lindl.

Aster oregonensis (Nutt.) Cronquist = ***Sericocarpus oregonensis*** Nutt.

Stenotus

Haplopappus acaulis (Nutt.) A. Gray = ***Stenotus acaulis*** (Nutt.) Nutt.
Haplopappus lanuginosus A. Gray = ***Stenotus lanuginosus*** (A. Gray) Greene

Symphyotrichum

Aster brachyactis S. F. Blake = ***Symphyotrichum ciliatum*** (Ledeb.) G. L. Nesom
Aster campestris Nutt. = ***Symphyotrichum campestre*** (Nutt.) G. L. Nesom
Aster chilensis Nees ssp. *chilensis* = ***Symphyotrichum chilense*** (Nees) G. L. Nesom
Aster chilensis ssp. *hallii* (A. Gray) Cronquist = ***Symphyotrichum hallii*** (A. Gray) G. L. Nesom
Aster chilensis ssp. *ascendens* (Lindl.) Cronquist = ***Symphyotrichum ascendens*** (Lindl.) G. L. Nesom
Aster eatonii (A. Gray) Howell = ***Symphyotrichum eatonii*** (A. Gray) G. L. Nesom
Aster foliaceus Lindl. var. *cusickii* (A. Gray) Cronquist = ***Symphyotrichum cusickii*** (A. Gray) G. L. Nesom
Aster foliaceus var. *lyallii* (A. Gray) Cronquist = ***Symphyotrichum hendersonii*** (Fernald) G. L. Nesom
Aster foliaceus var. *parryi* (D. C. Eaton) A. Gray = ***Symphyotrichum foliaceum*** var. ***parryi*** (D. C. Eaton) G. L. Nesom
Aster frondosus (Nutt.) Torr. & A. Gray = ***Symphyotrichum frondosum*** (Nutt.) G. L.Nesom
Aster hesperius A. Gray = ***Symphyotrichum lanceolatum*** (Willd.) G. L. Nesom var. ***hesperium*** (A. Gray) G. L. Nesom
Aster laevis L. = ***Symphyotrichum laeve*** (L.) G. L. Nesom
Aster novae-angliae L. = ***Symphyotrichum novae-angliae*** (L.) G. L. Nesom
Aster occidentalis (Nutt.) Torr. & A. Gray = ***Symphyotrichum spathulatum*** (Lindl.) G. L. Nesom [varieties yet to be settled on for Oregon Flora Project]
Aster pansus (S. F. Blake) Cronquist = ***Symphyotrichum ericoides*** (L.) G. L. Nesom var. ***pansum*** (S. F. Blake) G. L. Nesom
Aster subspicatus Nees = ***Symphyotrichum subspicatum*** (Nees) G. L. Nesom

Tonestus

Haplopappus lyallii A. Gray = ***Tonestus lyallii*** (A. Gray) A. Nelson

Tribe Cichorieae

Apargidium boreale (Bong.) Torr. & A. Gray = ***Microseris borealis*** (Bong.) Sch. Bip.
Lapsana apogonoides Maxim. = ***Lapsanastrum apogonoides*** (Maxim.) J. H. Pak & K.Bremer
Lactuca muralis (L.) Fresn. = ***Mycelis muralis*** (L.) Dumort.
Lactuca pulchella (Pursh) DC. = ***Mulgedium pulchellum*** (Pursh) G. Don
Lygodesmia exigua (A. Gray) A. Gray = ***Prenanthella exigua*** (A. Gray) Rydb.
Lygodesmia spinosa Nutt. = ***Pleiacanthus spinosus*** (Nutt.) Rydb.
Microseris lindleyi (DC.) A. Gray = ***Uropappus lindleyi*** (DC.) Nutt.
Microseris alpestris (A. Gray) Cronq. = ***Nothocalais alpestris*** (A. Gray) K. L. Chambers
Microseris troximoides A. Gray = ***Nothocalais troximoides*** (A. Gray) Greene

Tribe Heliantheae

Helenium hoopesii A. Gray = ***Hymenoxys hoopesii*** (A. Gray) Bierner
Hemizonia pungens (Hook. & Arn.) Torr. & A. Gray = ***Centromadia pungens*** (Hook. & Arn.) Greene
Hemizonia fitchii A. Gray = ***Centromadia fitchii*** (A. Gray) Greene
Iva xanthiifolia Nutt. = ***Cyclachaena xanthiifolia*** (Nutt.) Fresen.
Madia bolanderi (A. Gray) A. Gray = ***Kyhosia bolanderi*** (A. Gray) B. G. Baldwin
Madia madioides (Nutt.) Greene = ***Anisocarpus madioides*** Nutt.
Madia minima (A. Gray) D. D. Keck = ***Hemizonella minima*** (A. Gray) A. Gray

Tribe Senecioneae

Luina nardosmia (A. Gray) Cronquist = ***Cacaliopsis nardosmia*** (A. Gray) A. Gray
Luina stricta (Greene) B. L. Rob. = ***Rainiera stricta*** (Greene) Greene
Senecio bolanderi A. Gray = ***Packera bolanderi*** (A. Gray) W. A. Weber & A. Löve
Senecio canus Hook. = ***Packera cana*** (Hook.) W. A. Weber & A. Löve
Senecio cymbalarioides Buek = ***Packera subnuda*** (DC.) D. Trock & T. M. Barkley
Senecio eurycephalus Torr. & A. Gray = ***Packera eurycephala*** (Torr. & A. Gray) W. A Weber & A. Löve
Senecio flettii Wiegand = ***Packera flettii*** (Wiegand) W. A. Weber & A. Löve
Senecio hesperius Greene = ***Packera hesperia*** (Greene) W. A. Weber & A. Löve
Senecio macounii Greene = ***Packera macounii*** (Greene) W. A. Weber & A. Löve
Senecio mikanioides Walp. = ***Delairea odorata*** Lem.
Senecio pseudaureus Rydb. = ***Packera pseudaurea*** (Rydb.) W. A. Weber & A. Löve
Senecio streptanthifolius Greene = ***Packera streptanthifolia*** (Greene) W. A. Weber & A. Löve

Project News

by Linda Hardison

Things are hopping at the Oregon Flora Project! Thanks to funding from the John and Betty Soreng Environmental Fund of the Oregon Community Foundation, our staff members were rehired in September 2008. With renewed energy, we have been making progress on several facets that will put significant new material in the hands of the public this spring.

Look for an April launch of the Photo Gallery on our website, *www.oregonflora.org/gallery.php* This is a searchable collection of ~14,000 images of more than 2,000 species of Oregon plants. Users will be able to search for photos by scientific name or common name. Other options include selection by county, photographer, and rock garden designation. There are images of field photos and herbarium specimens, as well as links to the Atlas. The Photo Gallery has been developed through the contributions of many volunteers and photographers; it represents a partnership between citizens and scientists that has created a resource that everyone can use and enjoy.

If the Oregon Flora Project was constructing a building rather than a body of information, we would announce that the foundation is done, and the plumbing, wiring, and framework for the walls are receiving the final touches and are ready for inspection. This is the case with the Checklist. One of the final steps that staff member Thea Cook is completing for each taxon in the Checklist is the identification of a herbarium specimen to serve as a voucher. Her search for a number of these vouchers has taken us beyond the resources of the OSU Herbarium to collections across the region. Some of these specimens may represent state records; we will be asking to borrow them to verify their status.

A new version of the Atlas dataset will be available after the Checklist is submitted for review. It will reflect proposed name changes and incorporate new observations, along with specimen records from OSU. The update will raise the number of mappable records in the Atlas to over 530,000!

We are excited to announce that the Oregon Flora Project is hiring Dr. Barbara Wilson and Carex Working Group members Dick Brainerd and Nick Otting to begin writing our *Flora of Oregon*. Dr. Wilson will begin writing treatments for the grasses, which will complement the work we have done in this group for the morphology database and its multiple-entry keys. Welcome, Barbara and the Carex Working Group!

Volunteers are a vital part of our Project, and we are grateful to have received help recently from Jeff Cook, Gene Newcomb, Sara Norman, and Matthew Sundberg. Long-time team members continue to help in a volunteer capacity, including Ken Chambers, Rhoda Love, Stephen Meyers, Sherry Pittam, and Rena Schlachter. Please get in touch with us at: *hardisol@science.oregonstate.edu* if you would like to join this esteemed group of contributors!

Thanks

We thank the following for their recent financial support: Anonymous, Jules Abbott, Karen Allen, Laurie Allen, Joan Arsenault, Catherine Askren, Tom Baldwin, Tanya Beard, Julie Biddle & Tom Robertson, David Birkes, Page Birmingham, Lisa Blackburn, Wilbur Bluhm, Dick Brainerd, Nancy Broshot, Gerald & Barbara Carr, George & Fanny Carroll, Rob Castleberry, Elizabeth Churchill, Caitlin Coberly, Patrick Corelli, Anne Corey, Joann Robinson Cornelius, Terry Daley, Signe Danler, Nona Donahue, Sue Dornfeld, Janet Dorow, Penny Durant, Elena Efoli, Nancy Eid, Evelyn Everett, Jenifer & Roger Ferriel, Dana Field, Joan Frazee.

Robert & Elizabeth Frenkel, Dave Garcia, Sylvia Giustina, Emily Gladhart, Theo Glenn, Andy Gray, Lisa Hansen, Linda Hardie, Gloria G. Heller, P. Sydney Herbert, Kenneth Himes, Nancy Holzhauser, Beth Horn, David Horowitz, Jill Hubbard, Susan Imbrie, Rosamund Irwin, Lawrence Janeway, Kathryn Jernstedt, Debora Johnson, Albert Johnson, Morris & Margaret Johnson, Jim Johnson, Donovan Jones, Jennifer Karps, Doramay Keasbey, John Koenig, Eliza Lindsay, Marina Longden, Jeanine Lucas, Dan Luoma, Virginia Maffitt, Alex & Lillian Maksymowicz, Dorothy Mathews, Sara Mauritz, Bruce McCune & Pat Muir, Esther McEvoy, Vernie J. McGowan, Margaret Meierhenry, Andrew Merritt, Leslie Meserve, Frank & Jeanne Moore.

Lane County Checklist Group, Laurel Moulton, Linda Mullens, Barbara Mumblo, NPSO Mid-Columbia Chapter, Dennis Odion, Joan Ojerio, Bob & Judy Oliver, Bonnie Brunkow Olson, John & Helen Ost, Warren Pavlat, Marion Peterson, Sandra Poinsett, Jim & Ginny Post, Ray & Peg Prag, Richard Prusz, Carol Putnam, Charles Quinn, Wes Reynolds, Dell Rhodes, Mary Ann Roberts, Judith Roberts, Barbara Robinson, Wayne Rolle, Robert Ross, Freeman Rowe, Corrine Sherton & Dennis Martin, Charlene Simpson, Dresden Skees-Gregory, Katherine Skirvin, Nadine Smith, Veva Stansell, Deanna Sterett, Hope Stubbs, Charlie Sundberg & Beth de la Fuente, Norman & Donna Sundberg, Keith Swenson, Ron & Pam Swisher, Chris Van Schaack, Charles Trainer, Jennifer Travers, Luise Walker, Jay Walters, Wendy & Chris Wayne, Faith Wilkins, Susan Williams, Ann Willyard, Troy Wirth, Sunia Yang, Jo Ann Yeager, James Young, Harold Zald, and Desiderio Zamudio.

Gifts were given in memory of the following individuals: Marion Cox by the NPSO Umpqua Valley Chapter; Bonnie Hall by Jim Hall; Brian MacMillan by the NPSO High Desert Chapter; and Scott Sundberg by Michael VanWinkle.

How can I contribute?

Donations to the Oregon Flora Project are a critical part of our operating budget. Funds are routed to the OFP through the Agricultural Research Foundation (ARF). The ARF is a non-profit organization that raises funds to support scientific research and programs at OSU. All contributions are tax-deductible.

Your checks to the Oregon Flora Project can be made payable to the Agricultural Research Foundation. Please include "Oregon Flora Project—4482" on the memo line.

Mail your check to:
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With your contribution, please let us know if you do not wish your name listed in our newsletter "Thanks" column.

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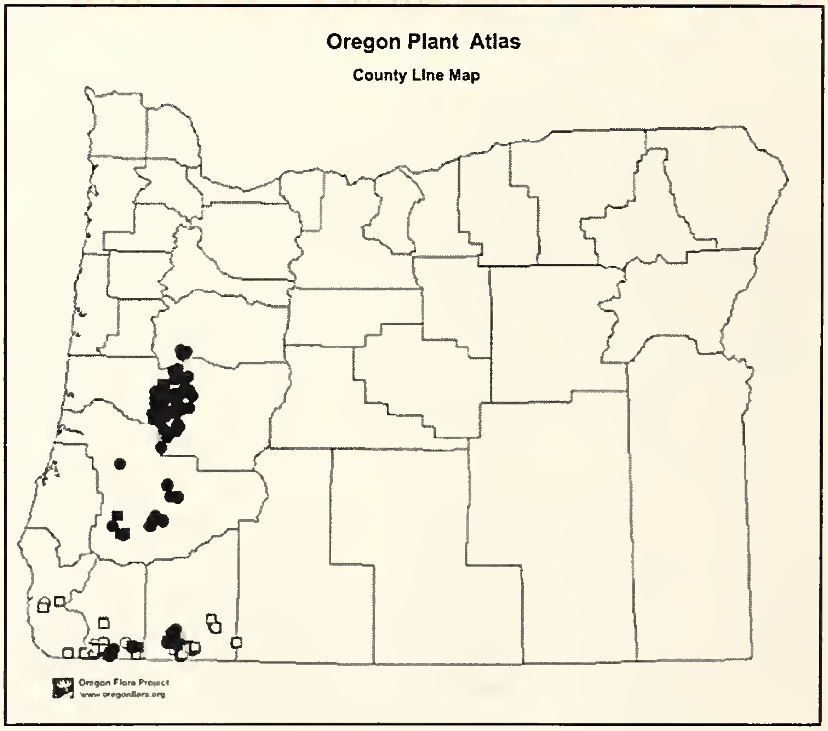
Did you know?

- *Eucephalus vialis*, formerly *Aster vialis* and commonly called wayside aster, was collected in the 1930s by botanical luminaries such as Peck and Henderson. It was thought to be extinct until Georgia Mason collected it near Eugene in 1980. ORNHIC includes *E. vialis* as a "List 1" species, meaning it is considered endangered or threatened throughout its range. It has been the subject of numerous studies, and there are now dozens of records of its occurrence.
- *Eucephalus vialis* has several close relatives in Southwest Oregon which the Oregon Plant Atlas (with nomenclature last updated in April 2007) considered as synonyms of *Eucephalus brickellioides*. These include *Aster siskiyouensis*, *Eucephalus glabratus*, and *E. tomentellus*.As Dr. Chambers' article (pp. 1-4) states, the former concept of *brickellioides* will be split into *E. tomentellus* and *E. glabratus*, based on the hairiness of their leaves.
- The similarities between *E. vialis* and *E. glabratus*, along with their overlapping distribution in Oregon's southern counties, suggest the possibility of intergradation. They differ mainly in leaf size and the frequent presence of 1-2 ray florets in *E. glabratus* versus none in *E. vialis*.



Distribution of *Eucephalus vialis* (solid symbols), *E. tomentellus*, and *E. glabratus* (open symbols). The Oregon Plant Atlas will be updated in the coming months to reflect changes in nomenclature and the addition of new records.

OREGON FLORA *Newsletter*

VOLUME 15 NUMBERS 2&3 OREGON STATE UNIVERSITY DECEMBER 2009

Project News

by Linda Hardison

What a year it has been for the Oregon Flora Project! This summer we reached a milestone with the launching of the Photo Gallery on our website, *http://oregonflora.org.* I suspect that this will be one of the most popular of our free offerings to the public. Our field photo contributors range from amateur plant enthusiasts to professional botanists, and all have a skill for photographing plants that conveys both the beauty and the scientific details of their subject. Also part of the Photo Gallery are photos of OSU Herbarium sheets; with this addition, information that was once restricted to herbarium visitors is now accessible to all users. This issue of the Newsletter features some of the individuals behind the cameras, as well as articles describing varied aspects of Photo Gallery preparation.

A second monumental project accomplished this year is a complete revision of the Oregon Plant Atlas.

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Photo by Melissa Carr

Gerald Carr has contributed thousands of digital images to the Photo Gallery, including many close-ups that help viewers identify a plant.

Developing the new Oregon Plant Atlas: volunteer Jeff Cook

by Rhoda Love

Background: From the moment in 1994 when the late Dr. Scott Sundberg founded the Oregon Flora Project he knew that an on-line atlas would be part of the project and he lost no time in appointing 12 Atlas Leaders to work in the field and the herbarium to gather data. Information gathering began at once with field exploration and the databasing of specimens; scores of students and volunteers have taken part in the project during the intervening 15 years. In early 1997, volunteer Clay Gautier of Eugene began to devise a computerized atlas, and by February 2002 the Oregon Vascular Plant Atlas was on-line and being heavily visited by the public. This very popular program has now been used and loved for over seven years, but recently the Flora Project was warned that its server host NACSE would no longer support the JAVA program on which the original Atlas was based. This announcement set off a search for individuals who could redesign a new Atlas program based on Google maps. That is how I happened recently to spend a pleasant evening at the home of Jeff and Thea Cook and their young son Henry, to talk about the development of the new Oregon Flora Project Atlas.

In recent months Jeff Cook, who has a full-time job with Lane Council of Governments, has volunteered over 200 evening and weekend hours to help develop the new mapping program based on Google. He, along with Kit Hoffman and Matt Ullmer realized that the revised Atlas needed to be completed relatively quickly. Fortunately the men were aided by the fact that the Rocky Mountain Herbarium had recently developed a new Google Maps-based Atlas, the RM Herbarium Specimen Database, and were willing to share their code. As they worked on the new program, communication between Jeff, Kit and Matt took place almost entirely via the Internet. Jeff told me that from the beginning their goal was to devise a new Oregon Flora Project map site that was as user-friendly as the one previously designed by Clay Gautier.

I asked Jeff what aspects of the new program may

See Oregon Plant Atlas, page 8

Please help us conserve resources!

If you prefer to receive this newsletter electronically via an email notice, or would like to be removed from our mailing list, please let us know. Send us an email at: *ofpflora@oregonflora.org*, or contact us using the information below.

The *Oregon Flora Newsletter* is published three times a year by the Oregon Flora Project and the Oregon State University Herbarium. **Beginning in 2010, the *Oregon Flora Newsletter* is reducing its publication to two issues per volume.**

The Editor is Rhoda Love and the Production Assistant is Rena Schlachter.

Erythronium oregonum logo and masthead designed by Tanya Harvey.

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Atlas Project Leaders:
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Oregon Plant Atlas continued from front page

seem different to users. He demonstrated some of these on his computer. For example, the Oregon maps created by Jon Kimerling are fresh and new and show much more detail. As with all Google maps, the user has the opportunity to zoom in and out -- from the immediate location of a specimen to a much wider area, or even the entire state of Oregon. I noticed that lakes, streams and other topographic features were much crisper and more distinctively colored on the new maps. I asked Jeff if the new mapping program worked with both PC computers and Macs and he assured me that it did.

As we wound up the interview Jeff had some final thoughts: “The greatest challenge was to make the program accessible and useful to everyone from botanists to students to any plant enthusiast who wants to learn where a taxon may be located. Part of meeting that challenge was ensuring that the underlying data were trustworthy as well, and for that, we relied on the hard work of Thea Cook, Katie Mitchell, Jennifer Sackinger and Linda Hardison who did quality control and loaded the data for the Atlas. The result, the new Atlas, was only possible with a lot of teamwork.”

Photo courtesy of Kit Hoffman

Kit Hoffman (above), together with Jeff Cook, tackled the programming for the Atlas. Kit started working for the OFP in 2007 and brings his considerable web design and programming skills to our team.

Photographing Herbarium Specimens for the Photo Gallery

by Gene Newcomb

This project was started some years ago by Don Roberts, M.D. of Salem. It had been languishing quietly until about a year ago when I took up the challenge. Fortunately I was familiar with digital cameras and found it fairly easy to work out procedures for getting the project under way again. I was provided with a list of taxa needing herbarium specimens to be photographed from a database search run by the ever helpful Thea Cook.

There are three basic steps to making a new image: choosing a "typical" specimen, setting up the specimen sheet for the camera, and enhancing the image. Finally, the new image is recorded on a CD to be loaded onto the Oregon Flora Photo Gallery website.

The specimen is chosen as a record of the floral and general morphological characteristics of a given species. Where there is a major range in size I try to pick something in the middle of the range although in a few cases I have photographed two specimens that show the range of variation. I avoid sheets that show major age discoloration and those with unattractive mounting materials such as Scotch or cloth tape. The specimen is placed on a copy stand with a rigidly mounted digital camera and off-camera flash lighting and is held in place with magnetic strips. The camera is under the control of an attached computer so that I take the shot using a mouse click. The picture produced is the raw material that undergoes manipulation in Photoshop. This involves rotating the picture to vertical format, cropping to eliminate extraneous parts, adjusting the background color, sharpening the image and modifying the contrast. No attempt is made to make the specimen appear as it did before it was pressed.

As I work through my list I have been struck by a number of things, some of which make me mutter and others that bring a smile to my face. I mutter about the limited information on some of the labels such as flower color and other morphological aspects that may be lost in the process of specimen preparation. Smiles come from seeing the names of colleagues, students, and even former teachers as collectors of the specimens I photograph. Lincoln Constance, who grew up in Eugene, collected for the University of Oregon Herbarium in the 1920's. Other California-based botanists such as Rimo Bacigalupi and native-Oregonian Bob Ornduff also came to our state now and then.

The specimen itself sometimes has me brooding about the nature of collecting and the data available to us. *Myosurus sessilis* is represented by only a single sheet, and the Plant Atlas has only eight widely distributed localities shown. How much of the dearth of information about this plant is due to its restricted habitat of ephemeral vernal pools, and how much is due to the challenge it gives collectors to recognize the tiny plant with reduced structures?

The list of specimens to be photographed is long and, proceeding alphabetically, I have reached the Saxifragaceae with the remainder of the dicots and all of the monocots and gymnosperms before me. Additional features of interest will no doubt be there for me to enjoy.

Recent generic changes in Asteraceae: some corrections

by Kenton L. Chambers

Four corrections have come to my attention for the above article in the last issue of Oregon Flora Newsletter.

Tribe Astereae: Under ***Symphyotrichum***, the authors for *S. laeve* should be: (L.) A. Löve & D. Löve

Tribe Astereae: For *Pyrrocoma linearis* (D. D. Keck) Kartesz & Gandhi, substitute *Pyrrocoma howellii* (A. Gray) Greene

Tribe Astereae: Add: *Pyrrocoma liatriformis* Greene, in part, misapplied = ***Pyrrocoma scaberula*** Greene

Tribe Cichorieae: Add: *Crepis nana* Richardson ssp. *ramosa* Babc. = ***Askellia nana*** (Richardson) W. A. Weber **ssp. *ramosa*** (Babc.) W. A. Weber

Tribe Senecioneae: Add: *Senecio porteri* Greene = ***Packera porteri*** (Greene) C. Jeffrey

Photo Gallery Facts

- 61 individuals have contributed field photos to the gallery.
- There are field and/or specimen images for 3,876 taxa in the Photo Gallery -- 86% of the state's flora!
- There are herbarium specimen images of 3,116 different taxa (69% of Oregon's flora). 1,082 images are type specimens. There are field photos of 2,853 taxa (63% of the flora).
- The plant with the most field photos, at 72, is *Lupinus sulphureus* ssp. *kincaidii*. The OFP regards this name and its varieties as synonyms for 3 different taxa.
- The files for our digital images are stored on 1,516 compact discs, as well as on an external hard drive.

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Preparing the Photo Gallery for the public

by Jennifer Sackinger, OFP staff

Preparing the Oregon Flora Project Photo Gallery for its recent debut was a multi-step process. First we edited all the digital photographs in our existing collection and digitized hundreds of slides recently donated by Richard Halse and other contributors. The details for all new acquisitions were entered in our Photo Gallery database, and the image files safely stored. We also dealt with numerous slides in our collection still needing to be scanned. Next, a list of plant species missing from the Photo Gallery was created, and we searched for any that might be represented in our collection of field photos. These slides and other existing images were located, digitized, and edited. Finally we took new photographs of any plant specimens not already represented in the collection. But we were not yet finished.

Next came the important task of organizing our database. First, duplicate image files and erroneous file names were deleted, and file names were standardized. We also searched Oregon Flora Project computers and disks to locate missing image files and saved these images to CDs. Our final task was sleuthing out information for images that were missing location, photographer, or other important data. Finally we had a complete, clean, standardized dataset in addition to scanned and edited images for as many Oregon taxa as possible. Now we are ready for the public to view our new Oregon Flora Project Photo Gallery. Enjoy!

Editor's Note: To read more about Jennifer Sackinger, see OFN *Volume 13(3), October 2007.*

Project News continued from front page

Our mapping program has been rewritten by two valuable web developers, Kit Hoffman and volunteer Jeff Cook. Techniques developed by Jeff and Kit that are used in the Atlas also appear in the Photo Gallery and Rare Plant Guide giving our website a common, easy-to-comprehend method of searching for information. New base maps created by Jon Kimerling, zoom capability, downloadable results, and over 540,000 total records are some of our exciting new Atlas features.

Hand in hand with the visible elements described above has been an internal change to our supporting information. Thea Cook is masterfully restructuring our multiple datasets into a single comprehensive database that will increase the efficiency of our online tools, and help the Flora Project accomplish our objective of completely interconnected components.

For all of you who are eagerly awaiting a printed *Flora of Oregon*, preparations for that important step are gaining momentum. Barbara Wilson and the Carex Working Group are preparing a new treatment of the grasses, and Aaron Liston's student, Stephen Meyers, has completed the gymnosperms. Our concurrent work on a morphology database will be used in a multiple entry key, which is an online plant identification tool now being developed.

There is also good news on the financial front. In June, the Oregon Flora Project received renewed support from the John & Betty Soreng Environmental Fund of the Oregon Community Foundation (OCF). Sustained support of this nature is a vote of confidence for our mission. We are working hard to warrant such confidence and hope that those who enjoy the resources we are developing will add their financial support to that of the OCF. Your contributions can be made payable to the Agricultural Research Foundation (include "Oregon Flora Project 4482" on the memo line), and mailed to the OFP contact address found on page 11. We send our thanks and Holiday Greetings to all our loyal supporters!

Photo by Ingrid Ford

As a notable member of the NPSO Emerald Chapter, Tanya Harvey has shared many beautiful photos grounded in her intimate knowledge of the western Cascades.

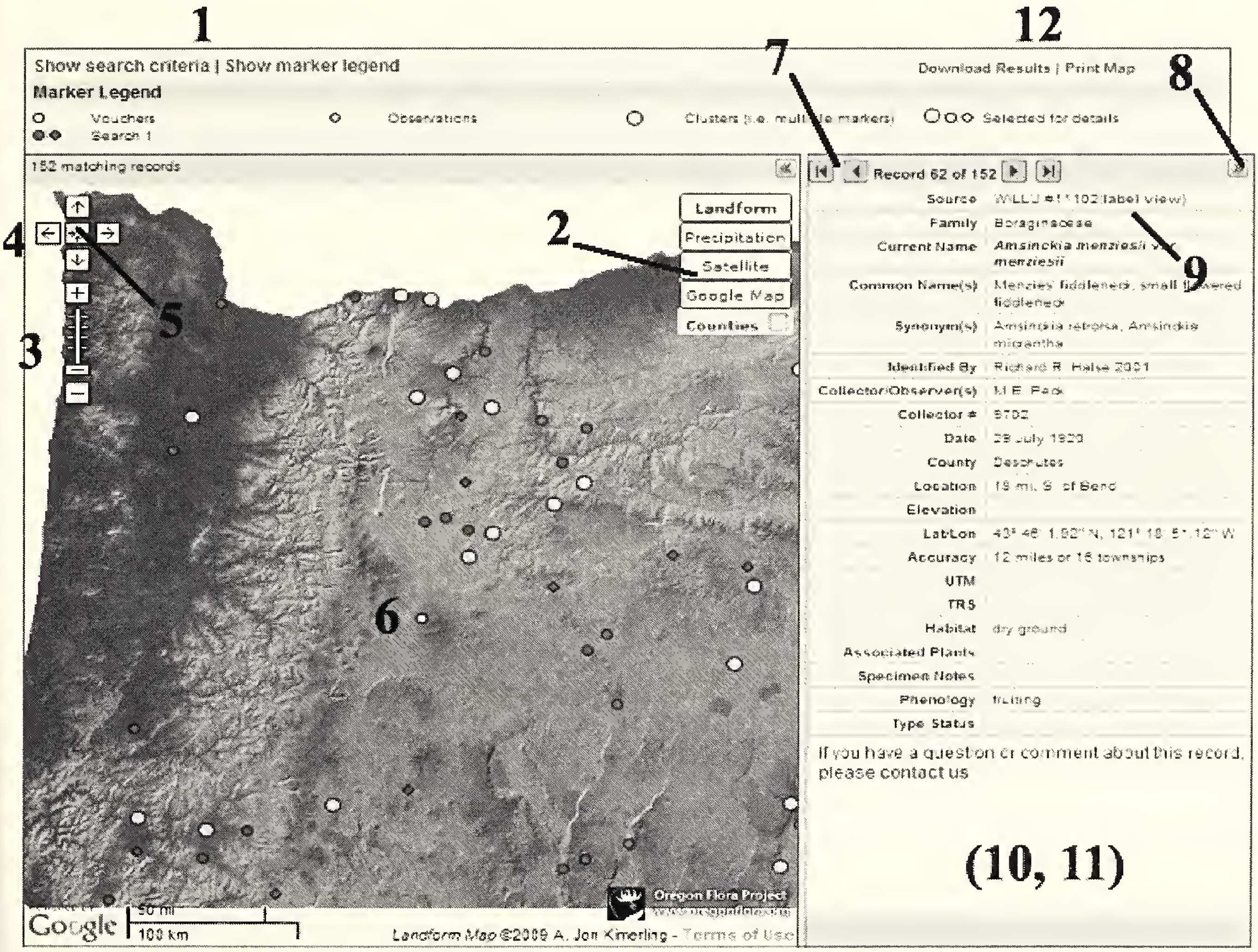
Using the new Oregon Plant Atlas

http://www.oregonflora.org/atlas.php

Development of the new Atlas will continue into the near future. A complete Users' Guide will appear in the next issue of the Newsletter. Use this page as a supplement to the instructions available online.

Selecting taxa to map

The Quick Search box and the drop-down lists of scientific and common names are identical to those in the Photo Gallery. Options available to refine an Atlas search include the mapping of vouchered collections and/or observations, as well as collector/observer, county, and date filters found under "Other Options." Multiple entries can be selected by holding the <CTRL> key while clicking. Press the "Create Map" button to generate a distribution map.



Record 62 of 152

Source	WILLU #111102 (label view)
Family	Boraginaceae
Current Name	*Amsinckia menziesii var. menziesii*
Common Name(s)	Menzies' fiddleneck, small flowered fiddleneck
Synonym(s)	Amsinckia retrorsa, Amsinckia micrantha
Identified By	Richard R. Halse 2001
Collector/Observer(s)	M.E. Peck
Collector #	9702
Date	29 July 1920
County	Deschutes
Location	19 mi. S. of Bend
Elevation	
Lat/Lon	43° 48' 1.92" N, 121° 18' 51.12" W
Accuracy	12 miles or 16 townships
UTM	
TRS	
Habitat	dry ground
Associated Plants	
Specimen Notes	
Phenology	fruiting
Type Status	

If you have a question or comment about this record, please contact us

1. Toggle to view details
2. Select base map, county lines
3. Zoom bar
4. Move map
5. Center map within view
6. Click on any dot to center the locality and display search details
7. Scroll through all records being mapped
8. Hide/show details
9. Display as a herbarium label
10. Link available to other taxa for species lists
11. Thumbnail available for photo records and some herbarium specimens
12. Download data, map

Users' Guide to the Photo Gallery

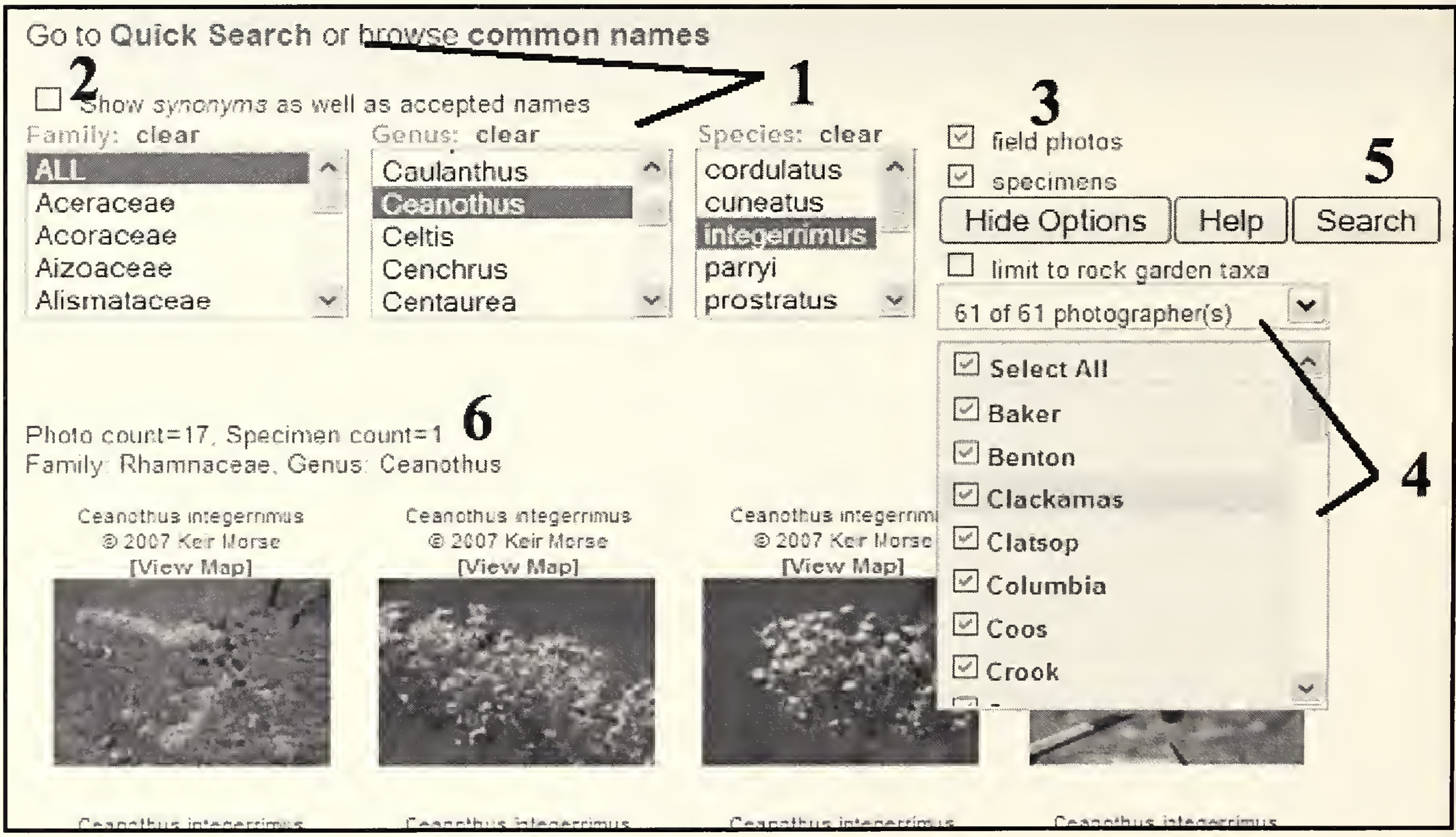
http://www.oregonflora.org/gallery.php

Selecting plant images to view

Type a character string into the Quick Search box, or select from drop-down lists of common names or scientific names **(1)**. The adjacent list will automatically fill with possible options. For any drop-down, click to position the cursor in a list and begin typing to have the cursor 'jump' to that place in the alphabet. *Hint:* the "Quick Search" is looking for matching text in *all* lists. If the genus is known, begin typing it in the "scientific" names genus drop-down for faster results.

Options for refining searches

Check boxes are used to add synonyms **(2)** to the drop-down lists, or to limit results to field photos and/or specimens **(3)**. Clicking the "Other Options" button reveals lists of photographers and counties **(4)**. Any combination can be selected by unchecking the "Select All" entry, then checking desired items.



Go to **Quick Search** or **browse common names**

☐ Show *synonyms* as well as accepted names

☑ field photos

☑ specimens

☐ limit to rock garden taxa

61 of 61 photographer(s)

Photo count=17, Specimen count=1

Family: Rhamnaceae, Genus: Ceanothus

Ceanothus integerrimus
© 2007 Keir Morse
[View Map]

Viewing results

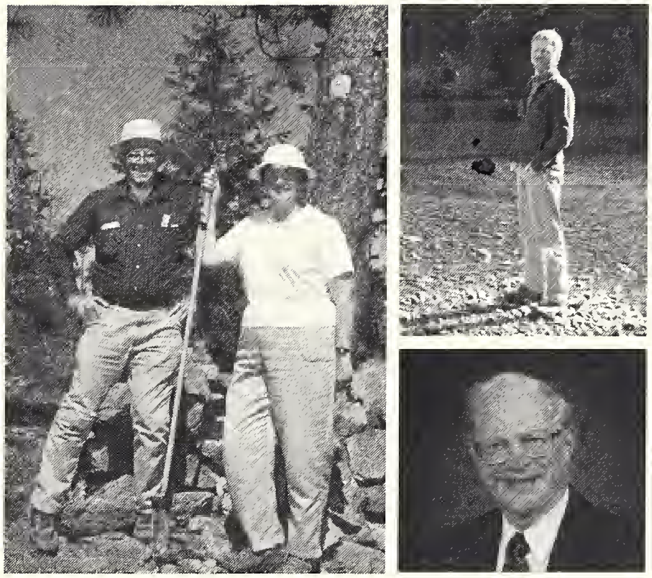
Press the "Search" button **(5)** to display thumbnail-sized images. The number of each image type is given **(6)**. Hovering the cursor over the scientific name shows the common name. *Note: the link to the Atlas is currently unavailable.* Clicking on any thumbnail will enlarge the image, and details about the photo will appear.

Thanks

We thank the following for their recent financial support: Norma Alberthal, Karl Anderson, Jason Balzar, Sandy Banks, Lisa Blackburn, Matt Blakeley-Smith, Bert Brehm, Richard Brock, Laura Brophy, Chuck & Patti Buffett, Erik Burke, Mary Bushman, Gretchen & Denis Carnaby, Kenton & Henrietta Chambers, Alisa Clark, Melody Clarkson, Kathleen Cooper, Ellen Crumb, Jan Curry, Terry Daley, James Duncan & Elaine Plaisance, Mark Egger, Linda Fava, Greg Freer, Clayton Gautier & Gail Baker, Theo Glenn, Jean Hanna, Betty Q. Hansen, Tanya Harvey, Noah Herlocker, Cliff Heselton, Evelyn Hess, Noel & Patricia Holmgren, Sheila Klest, Karol Kochsmeier, Ron & Kathleen Larson, Sara & Aaron Liston, and Cynthia Lord.

Glen & Rhoda Love, Barbara Massey, Barbara & Paul MacMillan, Master Gardener Assoc. of Benton County, Cheryl McCaffrey& Beth Walton, Dan Montague, Gene Newcomb, William Noble, Kathy Pendergrass, Marna & Robert Porath, Dana Abel & Charles Quinn, John & Phyllis Reynolds, Wayne Rolle, Renee Roufs, Shawn Schmelzer, Charlene Simpson, Veva Stansell, Hope Stanton, Norman & Donna Sundberg, Mary Thies & Chris Van Schaack, Charles & Clara Trainer, Mindy Trask, George Van Vechten, Carolyn Ver Linden, Luise Walker, Lee Webb, Nancy Weber, William Whitaker, Walt Yungen, the NPSO Portland Chapter, and the NPSO State organization.

Gifts were given by Desi & Karen Zamudio in honor of Lucile Housley's retirement from the BLM, and from Matt Blakeley-Smith in memory of Jim Weber.



Glenn and Barbara Halliday (left), Bruce Newhouse (above right), and Wilbur Bluhm (bottom right) helped build our photo collections through early contributions of thousands of images, and assistance in incorporating them in our database. Photos courtesy of individuals pictured.

Jon Kimerling (left) has enthusiastically applied his cartographic skills by creating two of the highly detailed base maps for the new version of the Atlas. Photo courtesy of Jon Kimerling.

How can I contribute?

Donations to the Oregon Flora Project are a critical part of our operating budget. Funds are routed to the OFP through the Agricultural Research Foundation (ARF). The ARF is a non-profit organization that raises funds to support scientific research and programs at OSU. All contributions are tax-deductible.

Your checks to the Oregon Flora Project can be made payable to the Agricultural Research Foundation. Please include "Oregon Flora Project—4482" on the memo line.

Mail your check to:
Oregon Flora Project
c/o Agricultural Research Foundation
Oregon State University
100 Strand Ag Hall
Corvallis, OR 97331-2219

With your contribution, please let us know if you do not wish your name listed in our newsletter "Thanks" column.

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Dept. of Botany & Plant Pathology
Oregon State University
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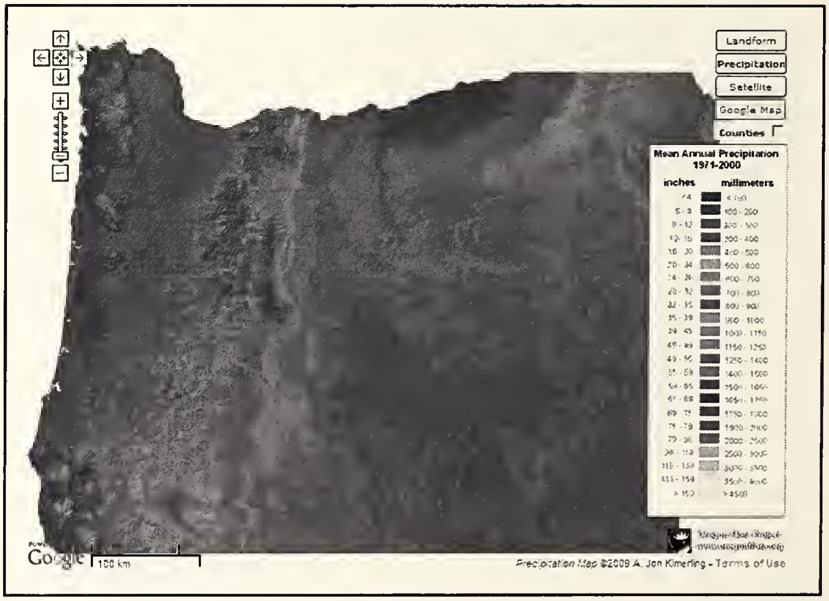
Corvallis, OR 97331-2902

TIME DATED MAIL

Did you know?

- The OFP recognizes 4,493 species, subspecies, and varieties of Oregon vascular plants. Of these, 1,003 are exotic; 3,487 are native; and 3 are "native and exotic"
- There are 540,668 records in the Oregon Flora Project Atlas; 181,157 are vouchered specimens from 51 herbaria, and 359,511 are observations.
- Up to 15,000 records can be displayed on a map at one time.
- The landform map designed by Jon Kimerling is at a 1:250,000 scale in the unexpanded view.
- The largest table in the database supporting the Atlas (the Specimen Label Data table) has 229,605 records and 37 fields.


Landform
Precipitation
Satellite
Google Map
Counties
Mean Annual Precipitation 1971-2000
inches
millimeters
100 km
Precipitation Map ©2009 A. Jon Kimerling - Terms of Use

The new Oregon Plant Atlas offers four base maps: precipitation (shown here), landforms with water features, satellite images, and road maps (the last two from Google Maps).